Please amend the application as follows:

In the Claims

Please cancel Claims 7, 12, 13, 15-21, 43, 73, 75, 80, 81 and 83. Claims 3-6, 10, 11, 72, 76, 78, 79 and 82 have been amended and are presented below in amended form and new Claims 86-152 have been added. In accordance with 37 C.F.R. § 1.121(c)(1)(ii), amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i and ii)

3. (Twice Amended) A method for altering angiogenesis in a mammal, comprising administering to the mammal, in a therapeutically effective quantity, an agent which alters the specific binding of an Ephrin family ligand with an Eph family receptor.

4. (Twice Amended) The method of Claim 3 wherein angiogenesis is inhibited and the agent interferes with the specific binding of the Ephrin family ligand with the Eph family receptor.

5. (Three Times Amended) The method of Claim 3 wherein angiogenesis is enhanced and the agent enhances specific binding of the Ephrin family ligand with the Eph family receptor.

6. (Twice Amended) The method of Claim 3 wherein the agent is an antagonist of the Ephrin family ligand or an antagonist of the Eph family receptor.

10. (Twice Amended) A method for selectively delivering an agent to arteries in a mammal, comprising administering to the mammal a complex comprising:

a) the agent; and

b) a component which binds an Ephrin family ligand,

under conditions appropriate for the component of (b) to bind the Ephrin family ligand, whereby the agent is delivered to arteries.

11. (Twice Amended) The method of Claim 10 wherein the agent is an anti-angiogenic agent and the component of (b) is selected from the group consisting of an antibody specific for the Ephrin family ligand and a soluble polypeptide comprising the extracellular domain of a receptor of the Ephrin family ligand.

72. (Twice Amended) The method of Claim 10 wherein the agent is an angiogenic agent.

76. (Amended) The method of Claim 3 wherein the agent is an agonist of the Ephrin family ligand or an agonist of the Eph family receptor.

78. (Amended) The method of Claim 10 wherein the agent is an anti-angiogenic agent.

79. (Amended) The method of Claim 10 wherein the agent is an angiogenic agent and the component of (b) is selected from the group consisting of an antibody specific for the Ephrin family ligand and a soluble polypeptide comprising the extracellular domain of a receptor of the Ephrin family ligand.

82. (Amended) The method of Claim 10 wherein the agent is an anti-plaque agent.

86. (New) The method of Claim 74 wherein a soluble polypeptide comprising the extracellular domain of EphrinB2 is administered.

87. (New) The method of Claim 86 wherein the soluble polypeptide comprising the extracellular domain of EphrinB2 is fused to an Fc domain of a human antibody.

88. (New) The method of Claim 87 wherein the Fc domain of a human antibody is an Fc domain of a human IgG antibody.

89. (New) The method of Claim 74 wherein a soluble polypeptide comprising the extracellular domain of EphB4 is administered.

90. (New) The method of Claim 89 wherein the soluble polypeptide comprising the extracellular domain of EphB4 is fused to an Fc domain of a human antibody.

91. (New) The method of Claim 90 wherein the Fc domain of a human antibody is an Fc domain of a human IgG antibody.

92. (New) The method of Claim 74 wherein growth of blood vessels is inhibited.

93. (New) The method of Claim 74 wherein growth of blood vessels is enhanced.

94. (New) A method for altering angiogenesis in a mammal, comprising administering to the mammal, in a therapeutically effective quantity, an agent which alters the specific binding of EphrinB2 to EphB4.

95. (New) The method of Claim 94 wherein angiogenesis is inhibited.

96. (New) The method of Claim 94 wherein the agent interferes with the specific binding of EphrinB2 with EphB4.

97. (New) The method of Claim 94 wherein angiogenesis is inhibited and the agent interferes with the specific binding of EphrinB2 with EphB4.

98. (New) The method of Claim 94 wherein angiogenesis is enhanced.

99. (New) The method of Claim 94 wherein the agent enhances specific binding of EphrinB2 with EphB4.

100. (New) The method of Claim 94 wherein angiogenesis is enhanced and the agent enhances specific binding of EphrinB2 with EphB4.

101. (New) The method of Claim 94 wherein the agent is an antibody which binds to EphrinB2.

102. (New) The method of Claim 101 wherein the antibody is a monoclonal antibody.

103. (New) The method of Claim 101 wherein angiogenesis is inhibited.

104. (New) The method of Claim 94 wherein the agent is an antibody which binds to EphB4.

105. (New) The method of Claim 104 wherein the antibody is a monoclonal antibody.

106. (New) The method of Claim 104 wherein angiogenesis is inhibited.

107. (New) The method of Claim 94 wherein the agent is selected from the group consisting of an antagonist of EphrinB2 and an antagonist of EphB4.

108. (New) The method of Claim 107 wherein the agent is an antagonist of EphrinB2.

109. (New) The method of Claim 108 wherein the antagonist of EphrinB2 is a soluble antagonist comprising an extracellular domain of EphrinB2 fused to an Fc domain of a human antibody.

110. (New) The method of Claim 109 wherein the Fc domain of a human antibody is an Fc domain of a human IgG antibody.

111. (New) The method of Claim 109 wherein the antagonist is in non-clustered form.

112. (New) The method of Claim 107 wherein the agent is an antagonist of EphB4.

113. (New) The method of Claim 112 wherein the antagonist of EphB4 is a soluble antagonist comprising an extracellular domain of EphB4 fused to an Fc domain of a human antibody.

114. (New) The method of Claim 113 wherein the Fc domain of a human antibody is an Fc domain of a human IgG antibody.

115. (New) The method of Claim 113 wherein the antagonist is in non-clustered form.

116. (New) The method of Claim 94 wherein the agent is selected from the group consisting of an agonist of EphrinB2 and an agonist of EphB4.

117. (New) The method of Claim 116 wherein the agent is an agonist of EphrinB2.

118. (New) The method of Claim 117 wherein the agonist of EphrinB2 is a soluble agonist comprising an extracellular domain of EphrinB2 fused to an Fc domain of a human antibody.

119. (New) The method of Claim 118 wherein the Fc domain of a human antibody is an Fc domain of a human IgG antibody.

120. (New) The method of Claim 118 wherein the agonist is in clustered form.

121. (New) The method of Claim 116 wherein the agent is an agonist of EphB4.

122. (New) The method of Claim121 wherein the agonist of EphB4 is a soluble agonist comprising an extracellular domain of EphB4 fused to an Fc domain of a human antibody.

123. (New) The method of Claim 122 wherein the Fc domain of a human antibody is an Fc domain of a human IgG antibody.

124. (New) The method of Claim 122 wherein the agonist is in clustered form.

125. (New) The method of Claim 116 wherein the agonist is selected from the group consisting of:

i) a soluble polypeptide comprising the extracellular domain of EphrinB2;

ii) a soluble polypeptide comprising an antigenic portion of the extracellular domain of EphrinB2;

iii) a soluble polypeptide comprising the extracellular domain of EphB4; and

iv) a soluble polypeptide comprising an antigenic portion of the extracellular domain of EphB4.

126. (New) The method of Claim 94 wherein the agent is administered locally to a site of angiogenesis.

127. (New) The method of Claim 126 wherein the site of angiogenesis is a tumor.

128. (New) The method of Claim 126 wherein the agent is selected from the group consisting of an antagonist of EphrinB2 and an antagonist of EphB4.

129. (New) The method of Claim 94 wherein the agent is administered locally to enhance vascularization.

130. (New) The method of Claim 129 wherein the agent is selected from the group consisting of an agonist of EphrinB2 and an agonist of EphB4.

131. (New) The method of Claim 94 wherein the mammal is a transgenic mammal.

132. (New) The method of Claim 131 wherein the transgenic mammal is a mouse.

133. (New) A method for selectively delivering an agent to arteries in a mammal, comprising administering to the mammal a complex comprising:

a) the agent; and

b) a component which binds EphrinB2,

under conditions appropriate for the component of (b) to bind EphrinB2, whereby the agent is delivered to arteries.

134. (New) The method of Claim 133 wherein the agent is selected from the group consisting of a drug, a diagnostic agent, an environmental factor and a dietary factor.

135. (New) The method of Claim 133 wherein the agent is an anti-angiogenic agent.

136. (New) The method of Claim 133 wherein the agent is an angiogenic agent.

137. (New) The method of Claim 133 wherein the agent is an anti-plaque agent.

138. (New) The method of Claim 133 wherein the agent is selected from the group consisting of a growth factor and a cytokine.

139. (New) The method of Claim 133 wherein the agent comprises a radioactive isotope.

140. (New) The method of Claim 133 wherein the agent is a diagnostic agent.

141. (New) The method of Claim 140 wherein the diagnostic agent comprises a label selected from the group consisting of a radioactive label, a fluorescent label, a colorimetric label, an enzyme label, an antigenic label, an epitopic label and a biotin label.

142. (New) The method of Claim 133 wherein the agent is a histological stain.

143. (New) The method of Claim 133 wherein the component in b) is an antibody which binds to EphrinB2.

144. (New) The method of Claim 143 wherein said antibody is a monoclonal antibody.

145. (New) The method of Claim 143 wherein said antibody is a polyclonal antibody.

146. (New) The method of Claim 133 wherein the component in (b) is selected from the group consisting of:

i) a soluble polypeptide comprising the extracellular domain of EphB4; and

ii) a soluble polypeptide comprising an antigenic portion of the extracellular domain of EphB4.

147. (New) The method of Claim 133 wherein the agent is an anti-angiogenic agent and the component of (b) is an antibody which binds to EphrinB2.

148. (New) The method of Claim 133 wherein the agent is an angiogenic agent and the component of (b) is an antibody which binds to EphrinB2.

149. (New) The method of Claim 133 wherein the complex is a fusion protein.

150. (New) The method of Claim 149 wherein the fusion protein comprises a moiety selected form the group consisting of alkaline phosphatase, blue flourescent protein, green flourescent protein and β-galactosidase.

151. (New) The method of Claim 133 wherein the mammal is a transgenic mammal.

152. (New) The method of Claim 151 wherein the transgenic mammal is a mouse.

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